Appendix 202B

DERIVATIVE INSTRUMENTS

Introduction

A derivative is a financial contract with cash-flows based on the value or level of an underlying asset, index, or reference rate. The most common derivatives are swaps, futures, forwards, and options.

The market for derivative instruments has grown rapidly since the 1980's, reflecting a broad range of applications for these products as well as their wide acceptance by financial institutions, institutional investors, and corporate treasurers.

Derivative products are used primarily to manage and control risk. Corporates should use derivatives only consistent with authorities granted under Part IV.

The term "derivative security" is also used by some to cover securities with option-like characteristics and securities that are created by "tranching," or "stripping" other securities instruments. A discussion of mortgage derivative securities appears in Appendix 202A. The following section describes the most common types of off-balance-sheet derivative contracts.

Types of Derivative Instruments

Derivatives can be divided into two distinct groups (a) forward-based products and (b) option-based products. Forward-based products include futures, forward transactions, and swap products. Option-based products include puts, calls, caps, floors, collars, and swaptions. Some derivatives are traded on organized exchanges, while others are traded in the over-the-counter markets.

"Exchange-traded" derivatives are standardized contracts traded on the futures and options exchanges. Each exchange operates a corporation known as a "clearinghouse" through which all contracts are reconciled, guaranteed, and settled. The clearinghouse places itself between the buyer and seller of each contract, making itself the counterparty to each contract.

"Over-the-counter" (OTC) contracts, on the other hand, are agreements entered into through private negotiations. Parties seek each other out and negotiate a trade. A number of large securities firms and commercial banks "make a market" in derivatives and are known as "derivatives dealers." Swaps, forward agreements, options, caps, and floors are actively traded in the OTC market.

Interest-Rate Swaps

An interest-rate swap is an agreement between two parties to exchange a series of cash flows at specified intervals known as payment or settlement dates. The cash flows, or interest payment streams, are based on notional principal amounts. No actual principal amounts are exchanged. Interim payments are usually netted, with the net amount being paid to one party or the other.

Interest-rate swaps are used primarily to manage interest-rate exposure and to lower debt financing costs. Swaps provide a means to transform an existing cash flow stream into a more desirable cash flow stream. For example, a swap can be used to transform floating-rate liabilities into fixed-rate liabilities. Because swaps are negotiated agreements, virtually any kind of payment stream can be swapped. The most common type of swap is the "fixed/floating" interest-rate swap described below.

Fixed/Floating Interest-Rate Swap

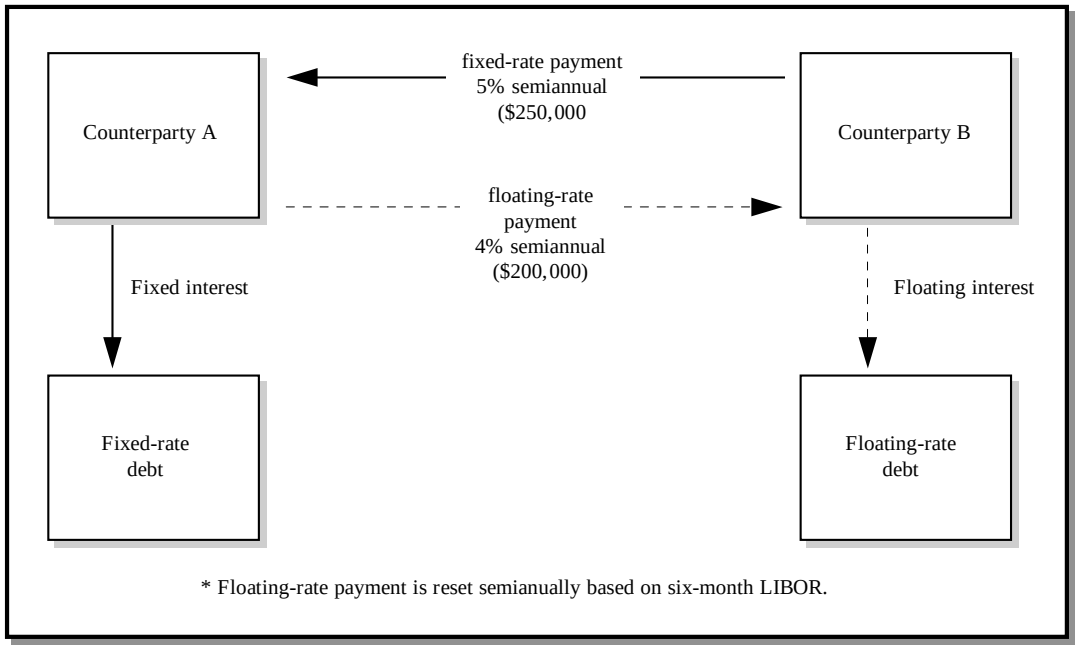
A fixed-for-floating interest-rate swap is a swap in which a fixed interest payment stream is exchanged for a floating-rate payment stream. The party that agrees to make fixed-rate payments is known as the "fixed-rate payer," and the party that makes the floating-rate payments is known as the "floating-rate payer." In effect, a fixed-for-floating swap enables the fixed-rate payer to transform floating-rate instruments into fixed-rate instruments.

A basic example of a fixed-for-floating swap is shown in Figure 1. In the example, Counterparty A has $10 million of fixed-rate borrowings that it wants to convert into floating-rate borrowings, and Counterparty B has $10 million of floating-rate borrowings that it wants to convert into fixed-rate borrowings. Both parties agree to enter into an interest-rate swap with a notional amount of $10 million. The agreement requires Counterparty B to make semiannual payments to Counterparty A at a fixed rate of 5 percent for three years. In exchange, Counterparty A agrees to make floating-rate payments based on the six-month London Interbank Offered Rate (LIBOR) with an initial rate of 4 percent.

Counterparty B (the fixed-rate payer) will make a net payment of $50,000 to Counterparty A on the first semiannual payment date. On that date, the floating-rate for the next six months is reset based on the prevailing six month LIBOR. If LIBOR increases after the swap is initiated, Counterparty A's cost of funds will rise since it is obligated to make floating-rate payments to Counterparty B. Counterparty B, on the other hand, will benefit if rates rise, since it will receive higher floating-rate payments while its payments remain fixed at 5 percent of the notional amount. Corporates that are exposed to rising rates can reduce their exposure by entering into a fixed-for-floating swap as the fixed-rate payer.

Figure 1

Fixed-to-Floating Interest-Rate Swap



Basis Swaps

Basis swaps are swaps where each side of the swap is based on a different floating-rate index (e.g., one month LIBOR against one-month Average Federal Funds effective). Basis swaps are also known as "floating-to-floating swaps."

A "yield curve swap" is a type of basis swap. In a yield curve swap, the interest rate for each side is indexed to a different maturity point of the yield curve for a particular security, but one leg of the swap is tied to a long-term rate. For example, a yield curve swap may have the 10 year Treasury note yield as the index for one side and the three month Treasury bill yield as the index for the other side. The value will change in response to changes in the shape of the yield curve between payment dates. For example, if the short end of the yield curve increases (decreases) relative to the long end, the value of the swap will increase (decrease) to the counterparty that receives the three month Treasury rate.

Another common basis swap is a "COFI/LIBOR swap." Cost of Funds Index (COFI) represents the weighted average cost of funds at the savings institutions in the Eleventh District of the Federal Home Loan Bank System. Some institutions that offer adjustable rate mortgages (ARMs) indexed to COFI use COFI/LIBORS swaps to hedge their COFI-based ARMs. An institution that enters into a swap to pay COFI and receive LIBOR will convert the ARM portfolio from a COFI-based index to a LIBOR-based index. So long as movements of the LIBOR index closely match movements in the institution's actual cost of funds, the swap should lower the institution's interest-rate-risk exposure.

Swap Termination

A corporate that has entered into a swap may wish to reverse or terminate the swap prior to maturity. There are two ways to unwind a swap position. One way is to negotiate a termination settlement with the original counterparty. The other is to enter into a new swap that is a mirror image of the existing swap to offset the existing position.

Swap Variations

Most swaps have a specified maturity date and a fixed notional amount. Some swaps, however, have notional amounts that amortize over time. Swaps can also be callable, in which case the swap can be terminated at the option of the corporate if interest rates increase or decrease beyond the "strike rate." A "swaption" is an option to enter into a swap at a future date. A "forward swap" is a firm commitment to enter into a swap at a specified future date.

Accounting

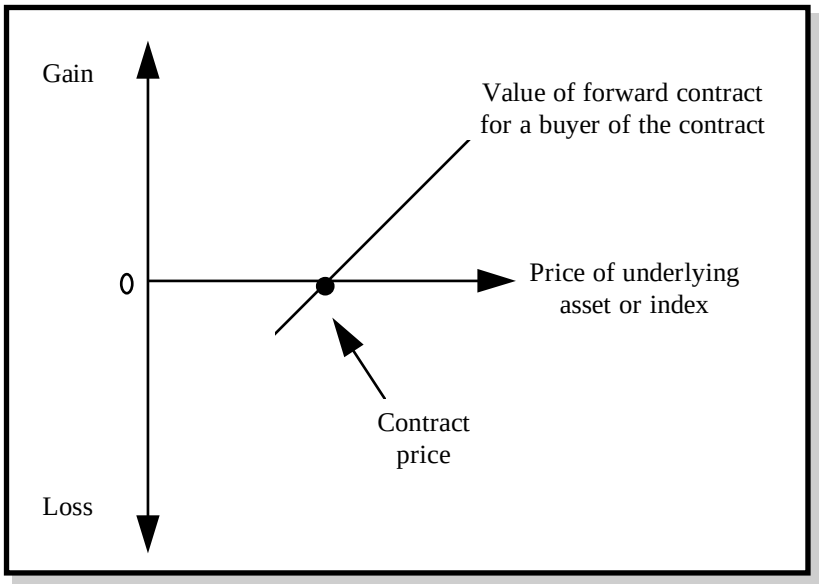
Interest-rate swaps are recorded using hedge accounting if the institution can demonstrate that the swap reduces exposure to interest-rate or cash-flow risk. See, Statement of Financial Accounting Standard No. 133. Since a swap typically has no initial market or book value on the transaction date, only the accrual of periodic net interest cash flows typically will flow through the income statement for highly effective hedges. If a swap is terminated prior to maturity, the gain or loss must be amortized over the remaining life of the swap. Swap positions that are not highly effective at reducing interest-rate or cash-flow risk must be marked-to-market, to the extent of ineffectiveness. Market value changes in the affected swaps will also flow through the financial statements. Examiners should analyze the characteristics and terms of each swap to determine whether the swap is being used to reduce risk.

Forward Contracts

A forward contract obligates one counterpary to buy, and the other to sell, a specific underlying financial instrument at a specific price, amount, and date in the future. Contracts specifying settlement in excess of the cash market practice for spot settlement are considered to be forward contracts. (Spot settlement for mortgages, for example, are once a month.) Forward contracts exist for a multitude of "underlyings," including currencies, commodities, and mortgages. Forward contracts are traded over-the-counter and are customized to fit the particular objectives of the counterparties.

Figure 2 shows the payoff profile of a forward contract. As shown, the change in the value of a forward contract is roughly proportional to the change in the value of the underlying asset or index. The value of the contract is conveyed at maturity through cash settlement or delivery. If the price of the underlying is higher than the contract price, then the buyer makes a profit. The gain to the buyer equals the loss to the seller.

Figure 2
Value of Forward Contract -- Long Position



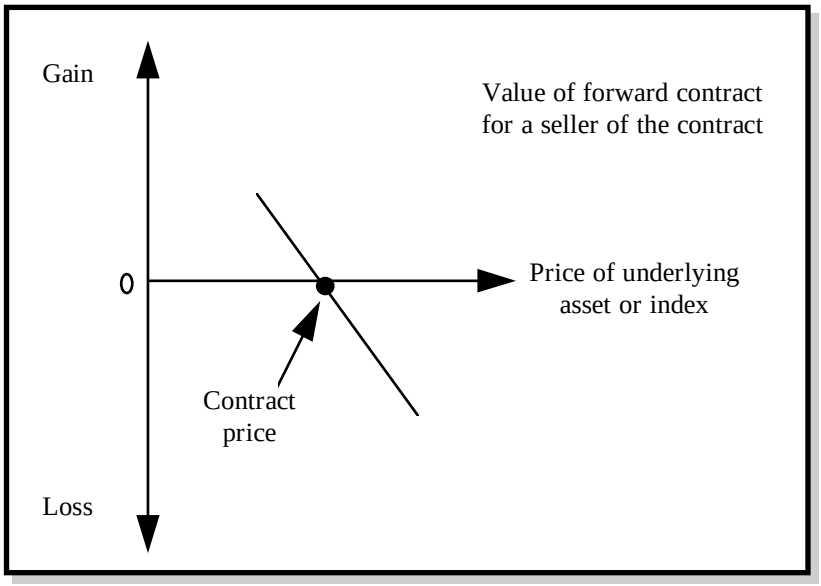
Forward contracts create two-way credit risk. The counterparty on the side of the contract that has a positive replacement value is exposed to credit risk of the other party. However, the market value of a contract can swing from a positive value to a negative value and vice versa. Therefore, each party must assess the creditworthiness of its counterparty since each side is exposed to a potential gain or loss. The value of the forward contract is conveyed on the maturity date of the contract. No payments are made at origination or during the life of the contract. The contract owner will either receive or make a payment at maturity depending on the price movement of the underlying asset or index.

Forward contracts are often used by mortgage bankers to hedge their operations. Institutions that originate mortgage loans for sale into the secondary market usually hedge the price risk of holding loans temporarily by arranging forward contracts to sell their loans. The forward sale of mortgage loans transfers the price risk of holding the mortgages in the "pipeline" to the counterparty. The payoff profile of a forward sale is shown in Figure 3. The seller of the forward contract is "short the underlying" and, therefore, gains if the value of the underlying asset declines.

Forward contracts to sell mortgage production can be "firm" or optional commitments. Firm commitments require both parties to perform on the contract (delivery of mortgages or cash settlement), regardless of market conditions. In contrast, optional commitments, such as "standbys," require performance only at the option of the party that purchased the option.

Figure 3

Value of Forward Contract -- Short Position



Institutions typically attempt to match the terms of the forward agreement to the terms of the item giving rise to the risk exposure. For example, assume an institution originates 30 year fixed-rate mortgages and expects to close most loans within a 45 day period. As loan production accumulates, the institution enters into a firm forward commitment to sell 30 year loans with a settlement date 45 days in the future. For the portion of the pipeline that is uncertain as to closure, a standby agreement may be used to hedge the market risk.

In general, forward contracts to buy mortgages or MBS (i.e.., the "long position") will increase the overall interest-rate-risk exposure of a typical corporate. Examiners should scrutinize long forward positions to determine if they are being used for speculative purposes.

Examiners also should look for "pairoffs," in which forward positions are closed out prior to settlement with offsetting forward contracts, usually at a profit. Pair-off activity is considered presumptive of speculative intent.

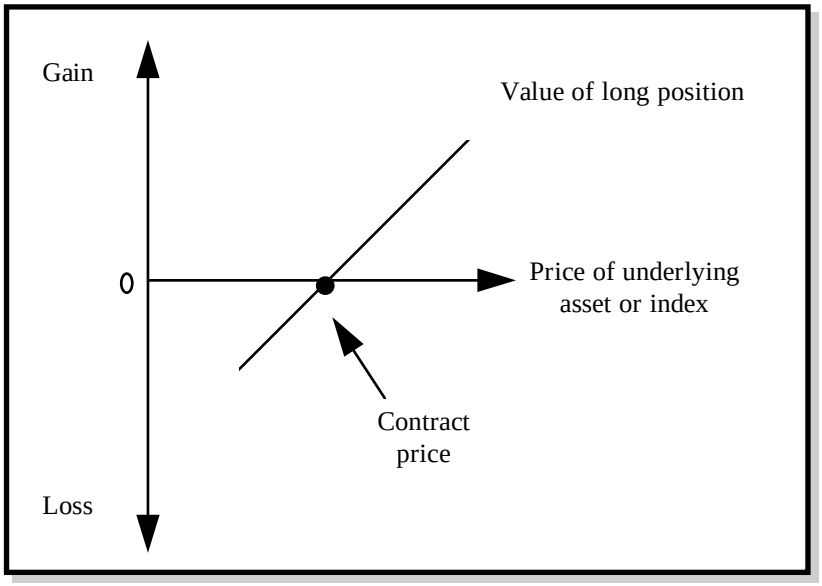
Futures Contracts

A futures contract is a legally binding agreement to make or take delivery of a standardized quantity and quality of a commodity or financial instrument on a specified date in the future. The value of a futures contract responds to changes in the price of the underlying commodity or financial instrument in much the same manner as the value of forward contracts. Futures contracts are traded on recognized exchanges, and the exchange clearinghouse is the counterparty to each trade.

Futures contracts based on a financial instrument or a financial index are known as financial futures. Financial futures include interest-rate futures, stock futures, and currency futures.

Financial futures can be an effective means of controlling interest-rate risk. The most commonly used interest-rate futures are those with Treasury bills, notes, and bonds, and Eurodollar time deposits as the underlying.

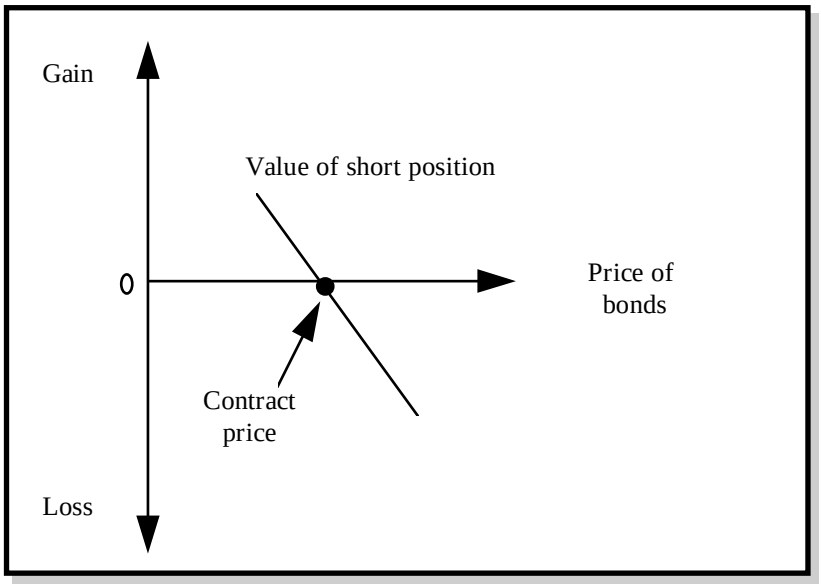
Figure 4
Value of Futures Contract -- Long Position



The buyer of a futures contract takes a "long position" in the market and is said to be "long the futures." The contract can be sold at any time before settlement. In the case of an interest-rate futures contract, such as a Treasury bond contract, a long position will profit if interest rates decline. Lower interest rates mean higher contract prices because interest rates and bond prices are inversely related. Conversely, an increase in rates will produce a loss on the long position. For the payoff profile of a long futures contract, see Figure 4. Note that futures contracts obligate their owners to purchase a specified asset at a specified exercise price on a specified maturity date.

A seller of a futures contract takes a short position in the market. In essence, sellers promises to deliver a commodity or financial asset even though they may not own the asset. A short position in a Treasury bond contract will profit if Treasury bond prices decline (i.e., if Treasury bond interest rates increase). Selling a futures contract (a short position) is an example of a hedging strategy that can be used to reduce the interest-rate risk exposure of an institution that loses value when interest rate rise. The payoff profile of a short futures position in Treasury bonds is shown in Figure 5.

Figure 5
Value of Treasury Bond Futures Contract -- Short Position



Compared with swaps and forwards, the credit risk of futures contracts is minimal for three reasons. First, futures contracts are "marked-to-market" daily and any change in the value of the futures contract is conveyed, or "cash settled," at the end of each day. (In contrast, the value of a forward contract is conveyed in a single payment at maturity. With a swap contract, changes in value are conveyed periodically throughout the life of the swap on each settlement date.) Second, buyers and sellers of futures contracts are required to post a performance bond, which is known as the "margin," with their brokers. The initial margin account is established when the contract is opened, and gains and losses on the futures contract are added to or subtracted from the margin account at the end of each day. If losses cause the margin account to fall below a specified level, the customer is required to post additional margin or the account will be closed out. And third, an exchange clearinghouse is the counterparty to each futures transaction.

Examiners should review any deferred gains or losses related to futures activity. The related accounting documentation must demonstrate that a highly effective hedge has been achieved to justify hedge accounting.

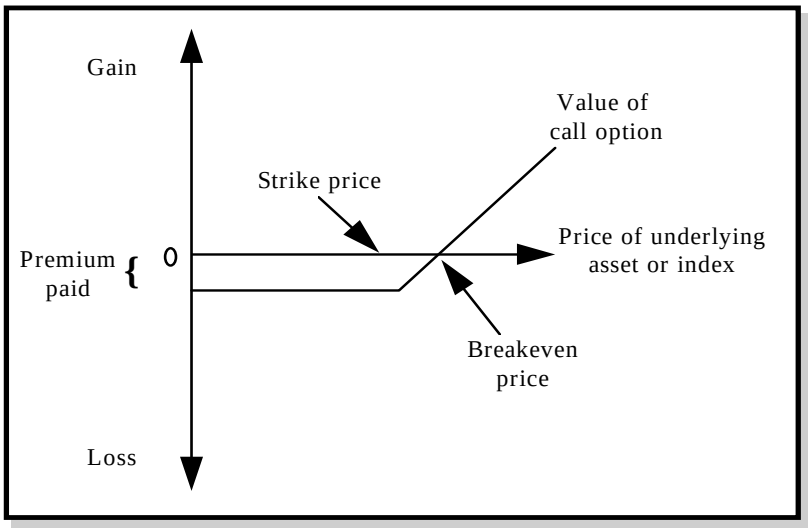
Options

An option gives the holder the right, but not the obligation, to buy or sell a designated asset or instrument at a specified price, called the "strike price," during a given period of time or on a specific date. The writer (or seller) of the option grants this right to the buyer in exchange for a sum of money that is referred to as the "option premium," or the option price. An "American option" may be exercised at any time during the life of the contract. A "European option" may only be exercised on the expiration date. Option contracts are traded on exchanges and in the OTC markets.

The buyer of any option is said to hold the "long position" and the seller (writer), the "short position." When the underlying asset is owned by the writer of the option, the position is "covered." When the writer does not own the underlying asset, the writer's position is said to be "naked."

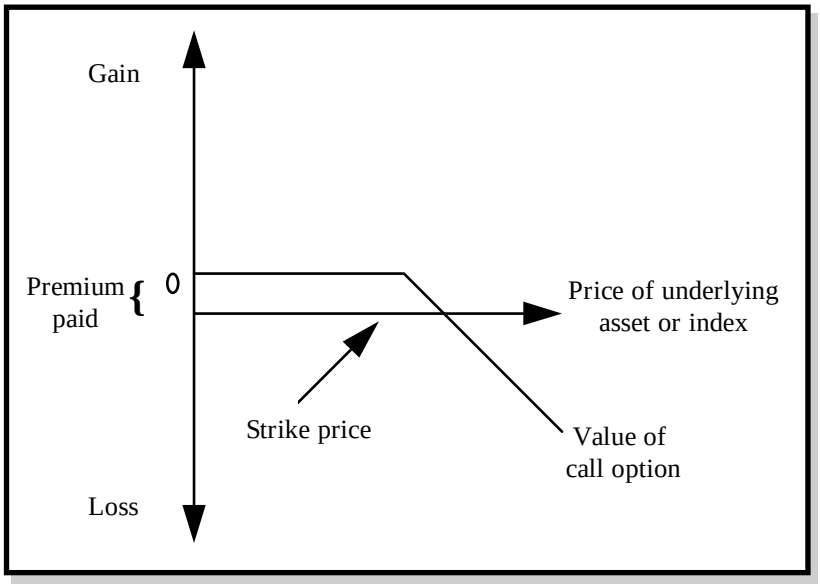
A "call option" gives the buyer (the "long" position) the right to buy the underlying asset at a predetermined "strike price" for a specified period of time. The buyer of a call option benefits if the price of the underlying asset rises above the strike price by an amount sufficient to cover the option premium. If the option is not exercised before expiration, the option will expire worthless. The profit potential of the long call position is substantial, while maximum loss on the option is limited to the option premium. The payoff profile of a long call position is shown in Figure 6.

Figure 6
Value of Call Option -- Long Position



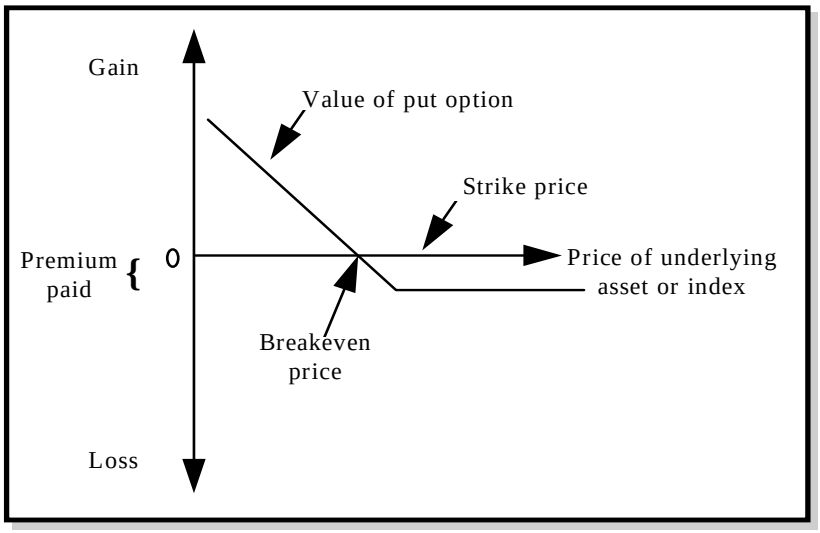
The payoff profile of the seller (the "short" position) is shown in Figure 7. Note that the profile of a short call option position is the opposite of a long call. Also, note that the profit potential of the short call position is limited to the amount of the option premium, while the loss potential is substantial.

Figure 7
Value of Call Option -- Short Position



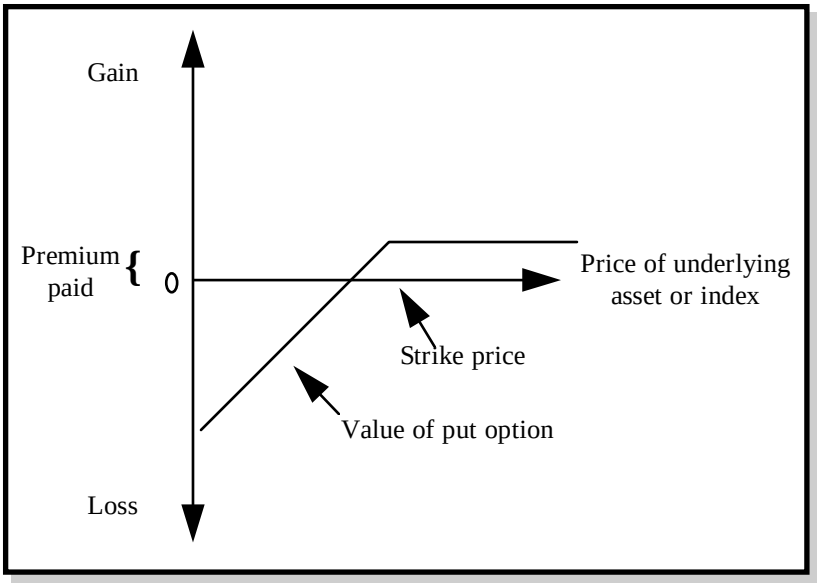
A "put option" gives the buyer (the long position) the right to sell a designated asset (or instrument) to the option writer at a specified price for a specified period of time. The buyer of a put option benefits if the price of the underlying declines sufficiently to cover the option premium. The payoff profile of a long put is shown in Figure 8.

Figure 8
Value of Put Option -- Long Position



The payoff profile of someone that is short a put option is shown in Figure 9. Just like a short call, the profit potential on a short put is limited to the premium received for writing the option, while the downside potential is substantial.

Figure 9
Value of Put Option -- Short Position



The value of an option is influenced by five factors:

1. strike price;
2. current price of the underlying instrument;
3. time to expiration of the contract;
4. expected volatility of yields (or prices) over the remaining life of the option; and
5. short-term risk-free interest rate over the life of the option.

Caps, Floors, and Collars

Interest-rate caps, floors, and collars are customized interest-rate options that can be used to manage interest-rate risk.

Cap. - A "cap" is a contract that provides the buyer with protection against a rise in interest rates above some specified rate. An underlying interest-rate index is specified in the contract. The most common index is LIBOR. The buyer pays a premium for the option. The contract will specify the notional amount of the contract, the maturity, the settlement frequency, the interest-rate index, and the level of protection (i.e., the strike rate of the cap). A cap can be used to synthetically set a maximum rate, or cap, on floating-rate borrowings. If rates rise above the cap rate, the buyer will receive a payment that will offset the increase in interest expense on the floating-rate borrowings above the cap rate. Thus, a cap can be used to fix the maximum rate that a borrower would pay out on a floating-rate obligation, while allowing the borrower to benefit from a decline in rates. (An institution can also sell a cap to generate income through receipt of a premium.)

Floor. - A "floor" is a contract that provides the buyer with protection against declining interest rates. A commercial bank with a relatively large portfolio of floating-rate loans might, for example, buy a floor to protect its net interest earnings against a decline in rates. For a premium, the buyer of a floor receives the difference between the strike rate (floor) and the actual rate on the index if the index falls below the floor. No payments exchange hands if the strike rate on a floor is greater than the current index rate. The seller of a floor receives a premium.

Collar. - A "collar" is a combination of the purchase of a cap at one rate and the sale of a floor at another rate. The cap and floor rates are usually set so that the cost of the cap equals the premium on the floor, resulting in a zero cost collar. For an institution that is exposed to rising rates, a collar provides protection if interest rates increase above the strike rate on the cap. But in exchange for that protection, the institution gives up the benefits of lower funding costs if rates fall below the strike rate on the floor.

Swaptions

A "swaption" (or swap option) is an option on a swap. It gives the buyer the right, but not the obligation, to enter into a specified swap at a future date.

Standby Agreements

A standby agreement is a put option (agreement to sell at a specified price) on mortgages or mortgage-backed securities. They are usually used by mortgage bankers to offset the risk of loans that would be expected to close if interest rates increase, but are otherwise uncertain as to closure. An institution pays a fee to purchase this protection.

Short standby positions (short puts) involve the receipt of a fee for taking on the risk of having to purchase loans in an adverse environment. Short puts are usually speculative. They should be viewed by examiners as speculative unless an institution can demonstrate otherwise.

Risks of Derivatives

The use of derivative instruments can be highly beneficial but, as with other types of financial products, their use entails certain risks. The primary risks include credit risk, market risk, and operational risk.

Credit Risk

Credit risk is the risk that a loss will occur if a counterpary defaults or otherwise fails to perform on a contract. The evaluation of credit risk is particularly important in the case of derivatives because the creditworthiness of counterparties can vary significantly. By comparison, counterparty risk on exchange-traded contracts is generally viewed as minimal because the exchanges guarantee the performance of each contract. In addition, credit exposures on exchange-traded options are minimized by margin requirements and daily settlement practices that are imposed by the exchanges.

The credit risk exposure of derivatives consists of two distinct elements: current exposure and potential exposure. Current exposure is the market value of the derivative at any point in time. The market value (or replacement value) of a derivative is equal to the net present value of the derivative's future cash flows. It is the cost of replacing the contract with a new one if the counterparty defaults. The current exposure can be either positive or negative. When the current exposure is positive, the contract represents an asset and the holder of the contract will suffer a loss if the counterparty defaults. When the market value of the contract is negative, the contract represents a liability; therefore, no credit loss will occur in the event of default since the contract has no value. (The current exposure on exchange-traded contracts is negligible since exchanges require daily settlement of gains and losses on contracts.)

The potential exposure of a derivative contract is the potential mark-to-market exposure that could occur if market conditions move in an adverse way. Potential exposure is only an estimate because future market conditions cannot be known with certainty. Market participants use various statistical techniques, such as Mount Carlo simulation, to estimate potential exposures.

For an audit loss to occur on a swap, two conditions must exist. First, the market value of the contract must be positive, and second, the counterparty must default on the contract. The same is not true for options contracts. With options, a counterparty default can result in a loss to the buyer of the option, even if its mark-to-market value is zero, since the buyer pays a premium to the seller when the contract is initiated. Obviously, the premium would be lost if the counterparty went out of business and would not perform on the contract.

Collateral arrangements are often used in derivative transactions to reduce exposure to counterparty risk. In swap transactions, collateral arrangements are subject to negotiation and can be unilateral or bilateral. Under a unilateral arrangement only the weaker counterparty is required to post collateral, while under a bilateral arrangement no collateral is posted initially, but either side may be required to post collateral if a "triggering" event occurs, such as a credit downgrading or a sharp movement in rates.

Netting arrangements are also used to reduce risk when a party has two or more swap transactions with the same counterparty. Typical netting arrangements call for all transactions with the same counterparty to be "netted" in the event of default, that is, all contracts between the two parties are marked-to-market and those with negative values are offset against those with positive values.

If netting does not apply, no offsetting occurs in the event of default. As a result, a practice known as "cherry picking" may occur. For example, a firm may have two swaps with the same counterparty, one with a positive replacement value and one with a negative replacement value. If the firm encounters bankruptcy it may attempt to seek relief from the swap that has a negative replacement value (a liability) and attempt to force the counterparty to continue to pay on the swap with a positive value.

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Market Risk

Market risk is the risk of loss on the value of the contract arising from changes in market conditions, including interest rates (interest-rate risk), supply and demand factors (liquidity risk), and other factors that affect the price of the contract. Sources of market risk differ for different types of derivatives. It is important for end-users to understand the forces that cause the market prices of the derivatives they use to change so that they can simulate the performance of the derivatives under different scenarios.

Operational Risk

Operational risk is the risk of losses occurring due of a failure of internal systems and controls, human error, or fraud.

Management Guidelines for Derivative Instruments

Corporates that use derivative products should do so only in accordance with safe and sound practices. Levels of activity should be reasonably related to the corporate's needs and financial sophistication. Management should evaluate the appropriateness of using derivatives in the context of its total portfolio risk. Such evaluations should assess the effect of the derivatives on the corporate's earnings and net economic value (i.e., the net present value of assets, liabilities, and off-balance sheet items). A corporate should consider the liquidity and price volatility of derivative products prior to use. In general, the use of derivatives should be limited to transactions and strategies that lower or do not increase an institution's overall exposure to interest-rate risk.

Corporates with Part IV Expanded Authority that use derivatives should adhere to the following guidelines:

Board of Directors' Approval

The board of directors should adopt, and vigorously enforce a written policy authorizing and governing the use of derivative products. The policy should (1) identify the authorized derivative products and (2) mandate recordkeeping systems that are sufficiently detailed to permit internal auditors to determine whether personnel have operated in accordance with the board's authorization.

Management should report periodically to the board regarding compliance with the board's policies on the use of derivative products.

Business Plan

Institutions are required to have a comprehensive business plan detailing their overall interest-rate risk management and investment strategy. That plan should include a description of the institution's derivative strategy and objectives.

Internal Controls

An institution should establish internal controls and procedures that include periodic reports to management, segregation of duties, and a program to ensure adherence to internal policies and procedures and to prevent unauthorized transactions and other abuses.

Segregation of Duties

Internal systems and procedures established to monitor derivative products should provide for segregation of duties among those responsible for execution, record-keeping, and verification. Management should designate who is authorized to commit the institution to derivatives transactions.

Position Limits

Management should establish specific position limits (expressed in terms of dollar amounts, or as a percentage of assets or capital) for each major type of derivative product. The limits should be consistent with the institution's intent, level of management expertise, the sophistication of its internal control and monitoring systems, its asset/liability structure, and its capacity to maintain liquidity and absorb losses out of capital. The board of directors, the asset/liability committee, or the internal auditors should review positions periodically to ascertain conformance with such limits. If the review is performed by the internal auditors, the auditors should report their findings to the board of directors or an appropriate committee of the board on a regular basis.

Aggregating Credit Exposures

Credit exposures on derivatives, and all other credit exposures to a counterparty, should be aggregated taking into consideration enforceable netting arrangements. Credit exposures should be calculated regularly and compared to credit limits.

Sensitivity Analysis (Stress Testing)

Prior to using derivatives a sensitivity or simulation analysis that demonstrates the effect of the derivative on the institution's net economic value should be performed under various interest-rate scenarios.

Depending on the nature and size of the transaction, the institution may wish to undertake a more comprehensive analysis to gain a better understanding of the expected performance under a wide range of interest-rate scenarios. A more comprehensive analysis might, for example, include an evaluation of the effects of non-parallel shifts in the yield curve, cyclical changes in interest rates, and changes in the spread between key short-term interest rates. With respect to mortgage-related derivative products, the analysis might also show the effect on earnings and net portfolio value of holding prepayment speeds constant over a range of interest rates, and holding interest rates constant over a range of prepayment speeds.

Marking-to-Market

Corporates should mark their derivatives positions to market, on a regular basis, for risk management purposes.

Professional Expertise

Corporates that use derivatives must ensure that their derivatives activities are undertaken by staff with the appropriate experience, skill levels, and degrees of specialization.

Institutions that retain investment advisors to assist in formulating portfolio strategies involving derivative products should not place undue reliance on, or delegate decision-making authority to, such advisors. Decisions made on the basis of recommendations of third parties should be documented.

Counterparty Credit Risk

To limit counterparty credit risk associated with over-the-counter derivative transactions, corporates should engage in transactions only with financially strong counterparties. Management should conduct a credit analysis of the counterparty prior to entering into a transaction. In addition, management should investigate the dealer's general reputation for fair and honest dealings with customers. Corporates should also conduct an inquiry of appropriate state or federal securities regulators and securities industry self-regulatory organizations concerning any formal enforcement actions against the dealer, its affiliates or associated personnel.

Corporates that use derivatives should assess both the benefits and costs of credit enhancement and related risk-reduction arrangements. Where it is proposed that credit downgrades would trigger early termination or collateral requirements, a corporate should carefully consider its own capacity and that of its counterparties to meet the potentially substantial funding needs that might result.

Legal Review

Management should carefully review all contractual and account documents related to derivative transactions, to ascertain the rights and obligations of all parties to the transactions, including margin and collateralization requirements, and the recourse available to each party. Management should thoroughly understand those rights and obligations to avoid possible misunderstandings.

Master Agreements

Corporates that use derivatives are encouraged to use one master agreement as widely as possible with each counterparty to document existing and future derivatives transactions, including options. Master agreements should provide for payments netting and close-out netting, using a full two-way payments approach.

Accounting Treatment

Derivative transactions must be accounted for and disclosed in accordance with generally accepted accounting principles (GAAP). Management should consult with its independent auditor to ensure compliance with GAAP. Where GAAP does not specifically address the accounting treatment for a particular derivative instrument, the accounting treatment employed by the institution should be documented and recorded and should include the basis for the adopted treatment.

Evaluation of Hedging Transactions

For hedging transactions, internal reports should show the market value of the derivative instruments and reconcile the gains and losses to the changes in the value of hedged balance sheet items. For example, if an institution purchased futures contracts to hedge the market value of a group of assets, the institution should compare the performance of the futures contracts in tandem with the performance of the hedged assets in order to evaluate the overall performance of a hedging program.